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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,836	07/21/2006	Mats Lindgren	opcon.830001.US0	6180
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HOLLAND & HART, LLP P.O BOX 8749 DENVER, CO 80201			EXAMINER TRIEU, THERESA	
			ART UNIT 3748	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,836	Applicant(s) LINDGREN, MATS	
	Examiner Theresa Trieu	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,8-10 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 2-7,11-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on May 6, 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is responsive to the applicants' amendment filed on May 6, 2008.

Claims 1-20 are pending in this application.

Applicants' cooperation in correcting the informalities in the drawing and specification are appreciated.

Drawings

1. The drawings were received on May 6, 2008. These drawings are acknowledged; however, a few minor informalities contain in the drawings.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "each of the gearwheels is designed has the same nominal pressure angle which is smaller than 15°", must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet"

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pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: page 5, lines 24-28 (claim 1); page 6, line 26 (claim 7) are an incomplete sentence that should be deleted because it refers to claim numbers which can change in numbering and content

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is objected to as being vague and indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation “each of the gearwheels is design with one” is narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. In other words, the limitation “*is design with one*” renders the claims indefinite, because it is unclear what features/element “with one” is, as applicant has claimed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8-10, 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rinder (Patent Number 4,643,654) in view of Nozue (Publication Number JP 60-085284).

Regarding claims 8, 9, 17 and 20, as shown in Figs. 1 and 2, Rinder discloses a method of, in a double screw compressor for supplying gas to a gas consumer reducing the effect of temperature variations of parts in the double-screw compressor on the functioning of the double-screw compressor, which double-screw compressor comprises two interacting rotors 10, 20 for compressing the gas and a toothed gearing, where the toothed gearing is designed with: a housing with two opposite end walls which are made of a first material, two parallel gearwheel shafts, which are each connected to one of the rotors and mounted rotatably in the opposite end walls with a nominal center distance, two interacting gearwheels which are fixed on a respective gearwheel shaft (the screw compressor obviously has gearwheel shaft) and made of a second material, each gearwheel having involute teeth corresponding to one another designed so as, when engagement between teeth on their respective wheels takes place, to form a nominal backlash(see Fig. 1) between the teeth interacting during the engagement, when the gearwheel shafts are located at the nominal center distance from one another; the nominal pressure angle of the gearwheels 10, 20 being selected as a nominal ,pressure angle common to both gearwheels within the range 0° to 15°; the two gearwheels being designed with the nominal pressure angle of

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around 10 degree; the gas being air. However, Rinder fails to disclose the material of the housing and the material of the gearwheels having different thermal expansion coefficients. Note that the limitation “ for supplying gas to a as consumer” is an intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963).

Regarding claims 8 and 10, Nozue teaches that it is conventional in the compressor art to utilize a housing 10; 120 with two opposite end walls 30, 40; 130, 140 which are made of a first material being aluminum and two gearwheels 50; 150, 160 being made of a second material being steel (see abstract); the first and second materials having different thermal expansion coefficients. It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the aluminum housing and steel gearwheels, as taught by Nozue in the Rinder apparatus, since the use thereof would have improved the abrasion-resistance of housing and two gearwheels.

6. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rinder in view of Nozue as applied to claim 1 above, and further in view of design choice.

The modified Rinder device discloses the invention as recited above; however, the modified Rinder fails to disclose the gas consumer being a fuel cell/ combustion engine.

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It is examiner's position that one having ordinary skill in the double-screw compressor art, would have found it obvious to utilize the compressed air being supplied to a fuel cell/ combustion engine, since they are merely design parameters, depending on being used for a particular purpose or solving a stated problem. Moreover, there is nothing in the record which establishes that the claimed gas consumer being a fuel cell/ combustion engine device under such conditions, presents a novel of unexpected result (See *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975)).

Allowable Subject Matter

7. Claims 2-7 and 11-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed May 6, 2008 have been fully considered but they are not persuasive.

Regarding claim 8, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., each of the gear wheel having the same nominal pressure angle which is smaller than 15°) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Applicant is duly reminded that a complete response must satisfy the requirements of 37 C.F.R. 1.111, including: "The reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references. A general allegation that the claims "define a patentable invention" without specifically pointing out how the language of the claims patentably distinguishes them from the references does not comply with the requirements of this section. Moreover, "The prompt development of a clear Issue requires that the replies of the applicant meet the objections to and rejections of the claims." Applicant should also specifically point out the support for any amendments made to the disclosure. See MPEP §2163.06 II(A), MPEP §2163.06 and MPEP §714.02. The "disclosure" includes the claims, the specification and the drawings.

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Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa Trieu whose telephone number is 571-272-4868. The examiner can normally be reached on Monday-Friday 8:30am- 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on 571-272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TT

/Theresa Trieu/
Primary Examiner, Art Unit 3748

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